

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Rejection of claims 1, 3, 4, 6, and 9 under 35 U.S.C. § 101

Claims 1, 3, 4, 6, and 9 presently stand rejected as lacking patentable utility. This rejection is respectfully traversed for at least the following reasons.

Claim 1 is directed to a method for determining a condition of degradation of bank notes, and claim 6 is directed to an apparatus for determining a condition of degradation of bank notes. Claim 1 is amended to further recite a step of processing the bank note according to the condition of degradation.

Applicant notes that the utility of determining a condition of degradation of bank notes is clearly indicated at page 1 of the present application, which states that “determining the state of bank notes is of great importance” for a variety of reasons, as well as at pages 5 and 6.

“To properly reject a claimed invention under 35 U.S.C. 101, the Office must (A) make a prima facie showing that the claimed invention lacks utility, and (B) provide a sufficient evidentiary basis for factual assumptions relied upon in establishing the prima facie showing.” MPEP § 2107.02(IV), citing *In re Gaubert*, 524 F.2d 1222, 1224, 187 USPQ 664, 666 (CCPA 1975). “The prima facie showing must be set forth in a well-reasoned statement. Any rejection based on lack of utility should include a detailed explanation why the claimed invention has no specific and substantial credible utility.” MPEP § 2107.02(IV).

It is respectfully submitted that the present rejection fails to make a prima facie showing that the claimed invention lacks utility, and fails to provide a sufficient evidentiary basis for factual assumptions relied upon in forming the rejection. It is respectfully submitted that simply stating that “said claims fail to describe any tangible

result such as the processing of a bank note in response to said operation” fails to meet the required standard, as it fails to indicate why, in a process and apparatus for determining the condition of degradation of a bank note, the derivation of the condition of degradation is not itself a sufficiently tangible result.

Applicant respectfully submits that the derivation of the condition of degradation is itself a sufficiently tangible result, and its utility is clearly set forth in the present application and will be clearly understood by persons of ordinary skill in the art.

Therefore, for at least these reasons, withdrawal of the rejection is requested.

Rejection of claim 3 under 35 U.S.C. § 112, second paragraph

Claim 3 presently stands rejected as being indefinite. In particular, the Examiner states that the term “each of the different for” is improper grammar. Claim 3 is amended to delete the words “for a set of,” to read “each of the different bank notes,” correcting this grammatical error. In view of the amendment, withdrawal of the rejection is requested.

Rejection of claims 1, 3, 4, 6, and 9 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 6, and 9 presently stand rejected as being anticipated by Hirasawa (U.S. 6,741,727). This rejection is respectfully traversed for at least the following reasons.

Claims 1 and 6 are amended to indicate that the values of the at least two different properties of each bank note are linked with each other by calculating a linear combination of the values of the different properties. According to the presently claimed invention, the condition of degradation of the bank note is then derived from a comparison of the linear combination of the different properties of the bank note with a given value. Support for the amended claims is found at least in the third full paragraph of page 5 of the original specification.

It is respectfully submitted that Hirasawa fails to disclose or suggest calculating a *linear combination of the values of the different properties* of a bank note, and then

deriving a condition of degradation of a bank note from a comparison of the linear combination of the different properties of the bank note with a given value.

The Examiner asserts that Hirasawa discloses linking the pixel data representing properties with each other by means of a linear combination, referring to column 9, lines 24-29 and column 10, lines 48-59 of Hirasawa.

Referring to the passage at column 10, lines 48-57 of Hirasawa cited by the Examiner, Hirasawa discloses determining a total estimation Y indicative of a degree of soil of each piece of printed matter, according to a linear combination wherein:

$$Y = a_0 + a_1 \cdot f_1 + a_2 \cdot f_2 + \dots + a_n \cdot f_n$$

However, Hirasawa makes no teaching or suggestion that the weight data  $a_0, a_1, \dots, a_n$  includes values of *the different properties* of a bank note or paper. Moreover, this passage of Hirasawa describes “a method for obtaining the soil degree by linear combination” as “one of the methods for obtaining the combination rule by learning.” (Hirasawa; col. 10, lines 47-49).

Hirasawa discloses that the combination rule is used for determining a *reference data*, which corresponds to the *given value* of the presently claimed invention and not to the *linear combination of the values of the different properties* of a bank note or paper.

Hirasawa states that “[a] description will now be given of the *creation of the reference value* used for the determining section 13 to determine the soil degree based on each feature quantity data item” (Hirasawa; col. 10, lines 27-30; emphasis added), and describes the creation of the reference value. In creating the *reference value*, images of printed matter are created and judged by an inspection expert as to whether they are dirty or clean. (see Hirasawa; col. 10, lines 32-35). Then, master data is created for each image, and the master data of various images are combined by *means of a combination rule* so that the soil degree of each piece of printed matter determined by the combination processing of the feature quantities will become closer to the estimation result of the expert. (see Hirasawa; col. 10, lines 41-46).

Thus, it is clearly understood that the passage of Hirasawa at column 10, lines 48-57 relates to creation of the reference value.

Hence, Hirasawa does not disclose or suggest that the condition of degradation of the banknote is derived from a comparison of the linear combination of values assigned to the different properties of the banknote with a given value. On the contrary, Hirasawa discloses determining the number of the pixels affected by the individual soil properties (such as wrinkles and missing spaces) and deriving a measure of the overall condition of degradation of the bank note on the basis of the reference data.

For at least these reasons, it is respectfully submitted that Hirasawa fails to disclose or suggest calculating a *linear combination of the values of the different properties* of a bank note, and then deriving a condition of degradation of a bank note from a comparison of the linear combination of the different properties of the bank note with a given value.

Since Hirasawa fails to disclose or suggest each and every element set forth in independent claims 1 and 6, it is respectfully submitted that all of claims 1, 3, 4, 6, and 9 are allowable over the cited reference, and withdrawal of the rejection is requested.

#### Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1, 3, 4, 6, and 9 be allowed and the application be passed to issue.

Response to Office Action of October 29, 2008  
Application No.: 10/566,091  
Examiner: M. J. Beauchaine  
Art Unit: 3653

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Date: January 29, 2009

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'John R. Schaefer', written in a cursive style.

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